

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-5 are now pending in this application wherein claims 1 and 5 are amended. The Office Action indicates that claim 5 recites allowable subject matter.

The drawings are objected to under 37 C.F.R. § 1.83(a) as not “show[ing] every feature of the invention specified in the claims.” In particular the Office Action requires that “plural directional control valves” and the “parallel and tandem passages” must be shown.¹ The objection to the drawings is respectfully traversed.

The Background portion of the application states the following:

“As a conventional technology of this type, a directional control valve block shown in FIG. 3 has been proposed. One of plural directional control valves included in the directional 15 control valve block, that is, a directional control valve 30 depicted in FIG. 3 is provided, in a valve main body 31, with a slidable spool 32, a pair of actuator ports 33,34, a communication passage 37 communicable to the actuator port 34, a communication passage 38 communicable to the actuator port 33, a parallel passage 36 connecting the plural directional control valves, which are included in the directional control valve block, in parallel with each other, and a tandem passage 35 connecting the plural directional control valves, which are included in the directional control valve block, in series with each other.”²

In describing an example embodiment of the instant invention, the specification further states, “This first embodiment can be arranged, for example,

¹ Office Action, page 2 first paragraph

² Applicants' Specification page 2, lines 12-25.

in a hydraulic drive system of a hydraulic excavator, and includes a plurality of directional control valves in a valve main body 1.”³

Figs. 1 and 2 each show portions of parallel 6 and tandem 5 passages associated with direction control valves of example embodiments of the current invention. The directional control valve shown in Figs. 1 and 2 is representative of, and illustrates, each of the plural direction control valves in a main body of an example directional valve body block. Accordingly, Applicants submit that Figs 1 and 2 illustrate the “plural directional control valves” and the “parallel and tandem passages,” and respectfully request that the objection to the drawings be withdrawn.

Claims 1-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This ground of rejection is respectfully traversed.

The Office Action states that claims 1-5 are rejected under 35 U.S.C. § 112, second paragraph, because the limitation “under a tandem passage connecting said plural directional control valves in series with each other” is unclear. Applicants respectfully disagree that the above-identified limitation is unclear.

³ Applicants’ Specification page 9, line 23 through page 10, line 1.

In describing the tandem passage for an embodiment of the invention, the specifications states, "When the pressure fluid is fed to the tandem passage 5 in the state that the spool 2 has been caused to slide in the rightward direction as mentioned above, the second check valve 9 is caused to move together with the first check valve 8 in the upward direction of FIG. 1 against the force of the spring 10."⁴

From the above, it is clear that the tandem passage receives pressure fluid fed to the direction control valves in the example embodiment of the invention, and that "connecting said plural directional control valves in series with each other" relates to the supply of pressure fluid to the tandem passages of the directional control valves. Accordingly, Applicant submits that in light of the specification, including the portion cited above, the meaning of "a tandem passage connecting said plural directional control valves in series with each other" in claim 1 is clear.

The Office Action additionally rejects Claim 5 under 35 U.S.C. § 112, second paragraph as being unclear for reciting "a seat portion is arranged in said parallel passage." Applicants submit that claim 5 does distinctly claim subject matter which Applicants regards as the invention. This response includes an amendment to Applicants' specification that makes more explicit that the clearance is "formed between the seat portion 19 of the valve main body 1 and

⁴ Applicants' Specification, page 14, lines 20-25.

said first check valve 15.” This description of an example embodiment of the invention is consistent with language of claim 5 cited in the Office Action. Support for the amendment to the specification can be found in at least Figure 2 of the drawings provided with this application.

Based on the above discussion, Applicants request that the rejections to claims 1-5 under 35 U.S.C. § 112, second paragraph be withdrawn.

Claims 1 and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,592,967 to Cho (“Cho”). This ground of rejection is respectfully traversed.

Claim 1 recites a directional control valve block having plural directional control valves in a valve main body. The claim requires the plural directional control valves to have, among other features, “a tandem passage connecting said plural directional control valves in series with each other.” Cho does not anticipate claim 1 at least because Cho does not disclose this identified feature required by claim 1.

The Office Action does not explicitly identify any portion of Cho as disclosing the above-identified feature. The Office Action states “a second check valve (303, when exerted from a pressure below the head 303) arranged coaxially with the first check valve for permitting a flow of pressure fluid from the tandem

passage toward the communication passage,”⁵ apparently identifying a space below the second check valve as the tandem passage. However Cho is silent regarding the space below the check valve 303 “connecting the plural direction control valves in series with each other” as required by claim 1. Accordingly, Cho does not anticipate claim 1.

Cho fails to anticipate claim 4 at least by virtue of its dependency from claim 1. It is requested that the rejection of claims 1 and 4 for anticipation be withdrawn.

Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cho in view of U.S. Patent No. 5,095,939 to Alderfer et al. (“Alderfer”). This ground of rejection is respectfully traversed.

As discussed above, Cho does not disclose all of the features of claim 1. The Office Action cites Alderfer as teaching “the use of a first check valve (46) slidably arranged in the second check valve (36,50).”⁶ Applicants respectfully submit that Alderfer does not cure the deficiencies in Cho discussed above for claim 1.

Alderfer discloses a redundant pressurizing valve having a first piston and a redundant second piston. Features 46 and 36 shown in Figs 1 and 2 of Alderfer are arranged as “concentric pistons.” These concentric pistons function

⁵ Office Action, page 4, lines 10-12.

⁶ Office Action, page 5, last paragraph.

redundantly to maintain pressure within a predetermined range.⁷ Alderfer is completely silent regarding the concentric pistons functioning as check valves and does not describe a tandem passage. Alderfer discloses a device having a completely different function than invention claimed in the instant application, and does not cure the deficiencies in teachings of the Cho identified above. Accordingly, the combination of Cho and Alderfer does not teach or suggest the above-identified features required by claim 1.

Claim 1 is patentably distinguishable from Cho and Alderfer for at least the reasons given above. Claims 2 and 3 are patentably distinguishable from Cho and Alderfer at least by way of the dependencies of claims 2 and 3 from claim 1. Accordingly, it is requested that the rejections of claims 2 and 3 for obviousness be withdrawn.

Claim 5 is objected to as containing informalities, and as being otherwise allowable would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 5 has been amended as suggested on page 3 of the Office Action to address the informalities cited in the Office Action. As discussed above, claim 5 complies with 35 U.S.C. § 112, 2nd paragraph. Further, claims 1 and 4 from

⁷ Alderfer, column 1, lines 25-26 and column 2, lines 10-20.

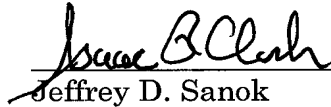
which claim 5 depends are allowable for at least the reasons given above. Accordingly, it is requested that the objections to claim 5 be withdrawn.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #080306.57341US).

Respectfully submitted,

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